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December 1, 1985

Project No. 612037

151834

Mr. Steven Gourley
Plant Engineer
Chicago Heights Steel
211 E. Main
Chicago Heights, Illinois 60411

Letter Report
Transmittal of Analytical Results
Chicago Heights Steel
Chicago Heights, Illinois

Dear Mr. Gourley:

This letter report presents the results of the Environmental Audit and summarizes the actions taken by IT Corporation (IT) at the Chicago Heights Steel (CHS) property. The purpose of the audit was to perform a visual inspection for obvious signs of environmental degradation and to perform a limited soil sampling and analysis program to confirm the results of the visual inspection. The audit was conducted on October 21, 1985. The soil samples were submitted to IT's Analytical Laboratory in Knoxville, Tennessee for analysis of Dioxin and Hazardous Substance List (HSL) organics. The results were received on November 25, 1985. The findings of the site walk-through and soil sampling are presented in the following sections.

Site Walk-Through

The site walk-through was conducted on October 21, 1985. The area investigated consisted of Parcels 1 and 2 of Block 108 and Parcels 1, 2, and 3 of Block 109. The area investigated is a relatively flat, moderately well vegetated vacant lot. The area is located to the north of the CHS manufacturing facility, and is bounded by 17th Street to the north, Riverdale Chemical Company to the east, and Center Ave. to the west. Figure 1 shows the area of the investigation.

The investigation was conducted by transecting the site in a north-south direction at approximately 50 foot intervals. During the investigation, the personnel looked for obvious signs of dumping or burial of refuse or other material, surface soil stains, stressed vegetation or lack of vegetation, and sheens on water in low lying areas. A HNu Model 101 Photoionization Detector was utilized to monitor air quality during the investigation, and to determine if volatile gases were present in areas where possible contamination may have occurred.

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Mr. Steven Gourley
December 3, 1985
Page 2

The investigation revealed that filling and grading activities had occurred in areas of the site, and several areas of construction debris and household refuse dumping were noted. Foundation remnants of an old building were also noted in the northern portion of Block 108. Figure 1 shows the locations of the above mentioned items.

An area of particular interest was noted along the southeastern edge of Block 108. This area was void of vegetation and extended from approximately 20 feet west of the eastern edge of the Block to the eastern boundary, and from the center of the Block to the southern boundary (Figure 1). The lack of vegetation did not appear to be the result of filling or grading activities.

With the exception of the above mentioned items, the site did not exhibit any visual signs of environmental degradation, and no positive readings above background levels were recorded on the HNu.

Soil Sampling

Surface soil samples were collected on October 21, 1985. The sampling points were located at equal intervals along two lines located approximately 10 and 35 feet from the Riverdale/CHS property boundary. The sampling locations were marked with a wooden stake indicating the sample number. Figure 2 shows the location of the surface soil sampling points.

The soil samples were collected from the top 3 inches of soil, using a stainless steel spoon. Soil from sampling points 1 through 4 were collected and placed in a stainless steel tray. The soil was then mixed and composited into analytical sample number 1. Utilizing a second set of sampling equipment, soil was then collected from sampling points 5 through 8 and composited into analytical sample number 2.

The samples were analyzed for volatile organic compounds, base neutral acid extractable compounds (BNAs), pesticides, PCBs, and 2,3,7,8-tetrachloro-dibenzo-p-dioxin (Dioxin). The analytical results are given in Table 1.

Both samples exhibited concentrations of several volatiles, base neutral acid extractables, and pesticides. Analytical sample number 2 exhibited the presence of Dioxin. In general, analytical sample number 2 exhibited higher concentrations of a majority of the compounds detected.

Conclusions and Recommendations

Based on the analytical results of the soil sampling, it appears that an environmental problem exists in the eastern portion of Block 108, Parcel 2. The visual inspection of this area indicates that the problem appears to be limited to a strip approximately 50 feet immediately adjacent to the eastern edge of the Block, however the actual vertical and horizontal extent of the soil contamination is unknown.

Jourley
1985

aware, IT Corporation is currently assisting the owners of Chemical Company in investigating the extent of Dioxin contamination of the property. A comparison of the analytical results obtained from collected at Riverdale with the results from the CHS samples, and a of the surface drainage patterns, would indicate that the source of the tamination on CHS property may be closely associated with the ants detected on Riverdale's property.

of the above mentioned items, it is recommended that the following be taken:

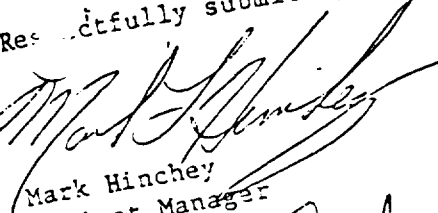
Collection of additional soil samples to determine the vertical and horizontal extent of the problem.

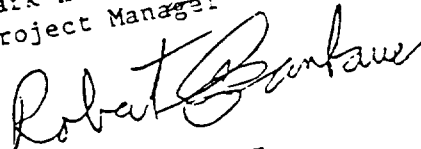
- o Schedule a meeting with Riverdale Chemical Company personnel to discuss the situation. We recommend that IT personnel be present at this meeting to provide technical assistance.

preparing this report, our professional services have been performed and findings obtained in accordance with generally accepted engineering principles and practices. This warranty is in lieu of all other warranties, whether expressed or implied.

We trust that this submittal satisfies your requirements at this time and look forward to continue working with you on this project. If you require additional information or clarification, please feel free to contact us.

Respectfully submitted,


Mark Hinchey
Project Manager


Robert Spanbauer
Project Geologist

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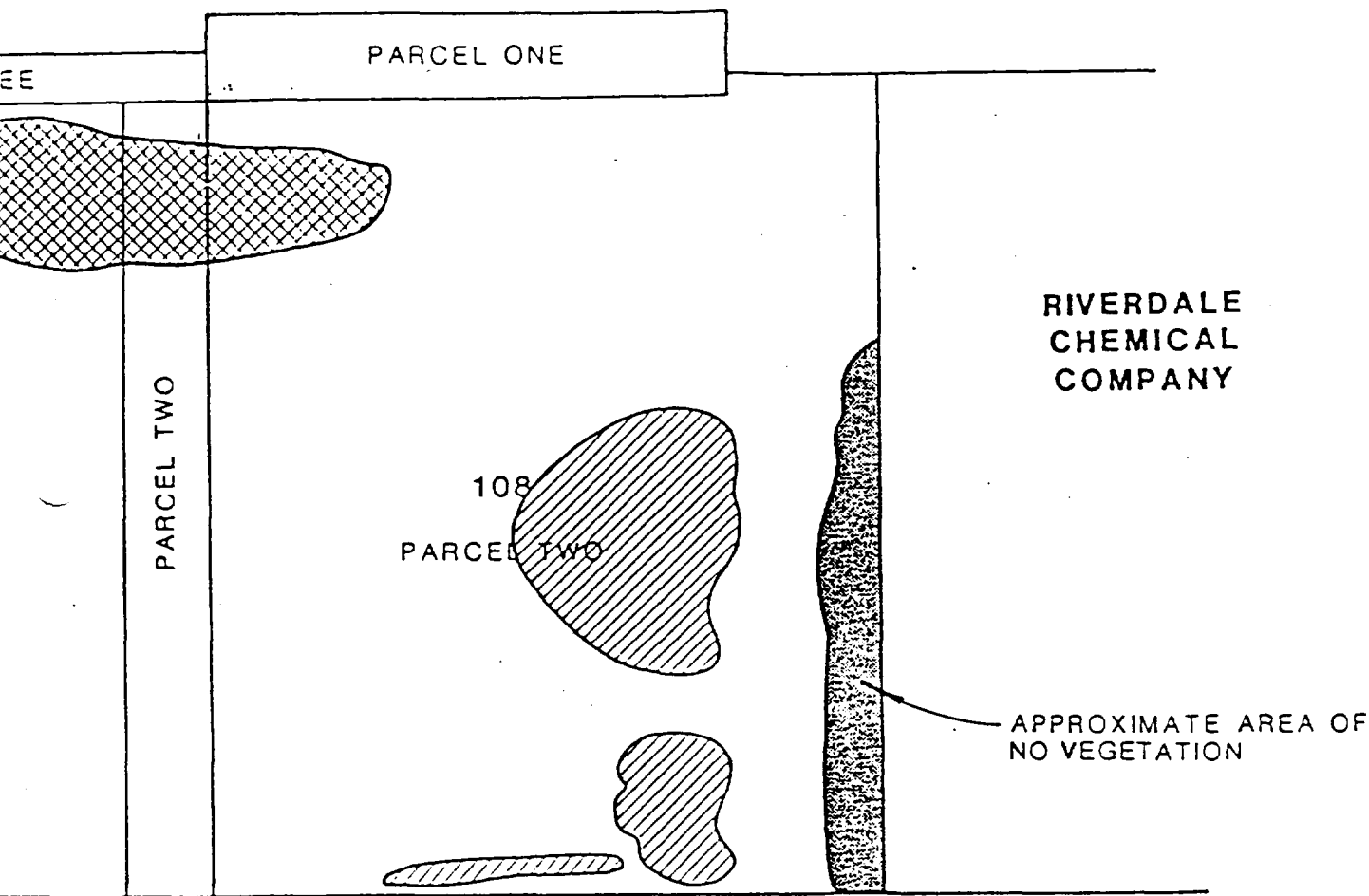
Note: Results expressed as parts per billion (ppb).
 ND = Not detected.

Chlordane	83,000	120,000
Endrin Ketone	1,100	680
4,4-DDT	ND	5,800
Dieldrin	68,000	47,000
Aldrin	200,000	16,000
Heptachlor	62,000	4,200
Alpha-bhc	ND	260
Benzo(g,h,i)perylene	500	990
Indeno(1,2,3-cd)pyrene	490	190
Benzo(a)pyrene	890	2,100
Benzo(k)fluoranthene	960	1,700
Benzo(b)fluoranthene	960	1,700
Pyrene	1,300	2,500
Bis(2-ethylhexyl)phthalate	670	980
Benzo(a)anthracene	910	2,300
Butylbenzylphthalate	320	520
Pyrene	1,900	4,600
Fluoranthene	1,500	3,500
Di-n-butylphthalate	ND	300
Anthracene	ND	360
Phenanthrene	900	1,700
fluorene	ND	90
1-methylnaphthalene	400	ND
phenylene	170	ND
luene	12	ND
butanone	7.4	43
ylene Chloride	ND	6.7
7,8-TCDD (Dioxin)	36	5.3
UND DETECTED	ND	35

ANALYTICAL RESULTS
 CHICAGO HEIGHTS STEEL
 ANALYTICAL
 SAMPLE NO. 1

ANALYTICAL
 SAMPLE NO. 2

17TH STREET



MICHIGAN CENTRAL RR

UNLAWFUL REFUSE
BUILDING FOUNDATION

FIGURE 1

SITE MAP

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CHICAGO HEIGHTS STEEL
CHICAGO HEIGHTS, ILLINOIS

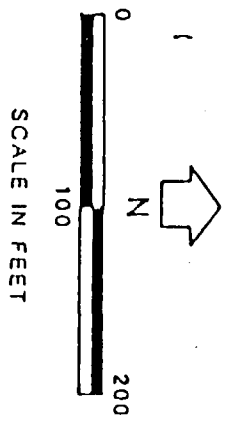
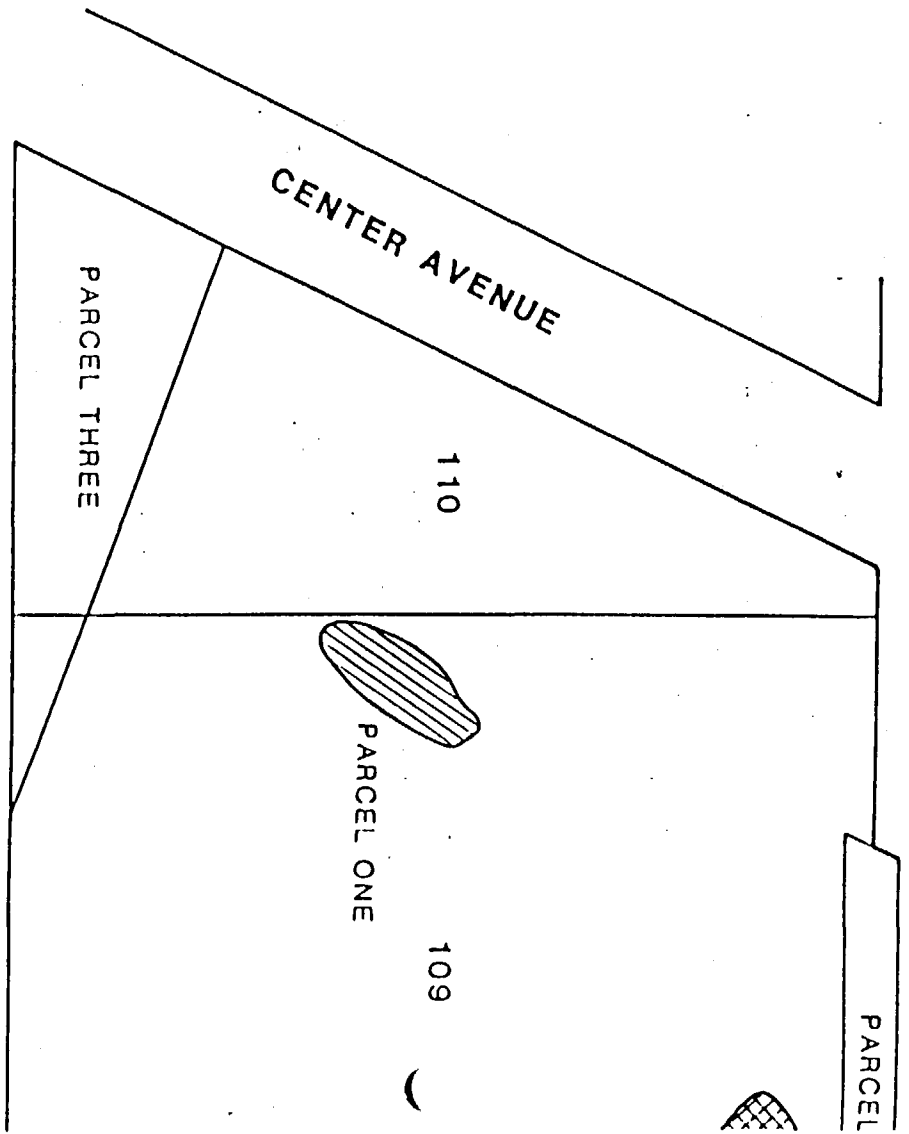


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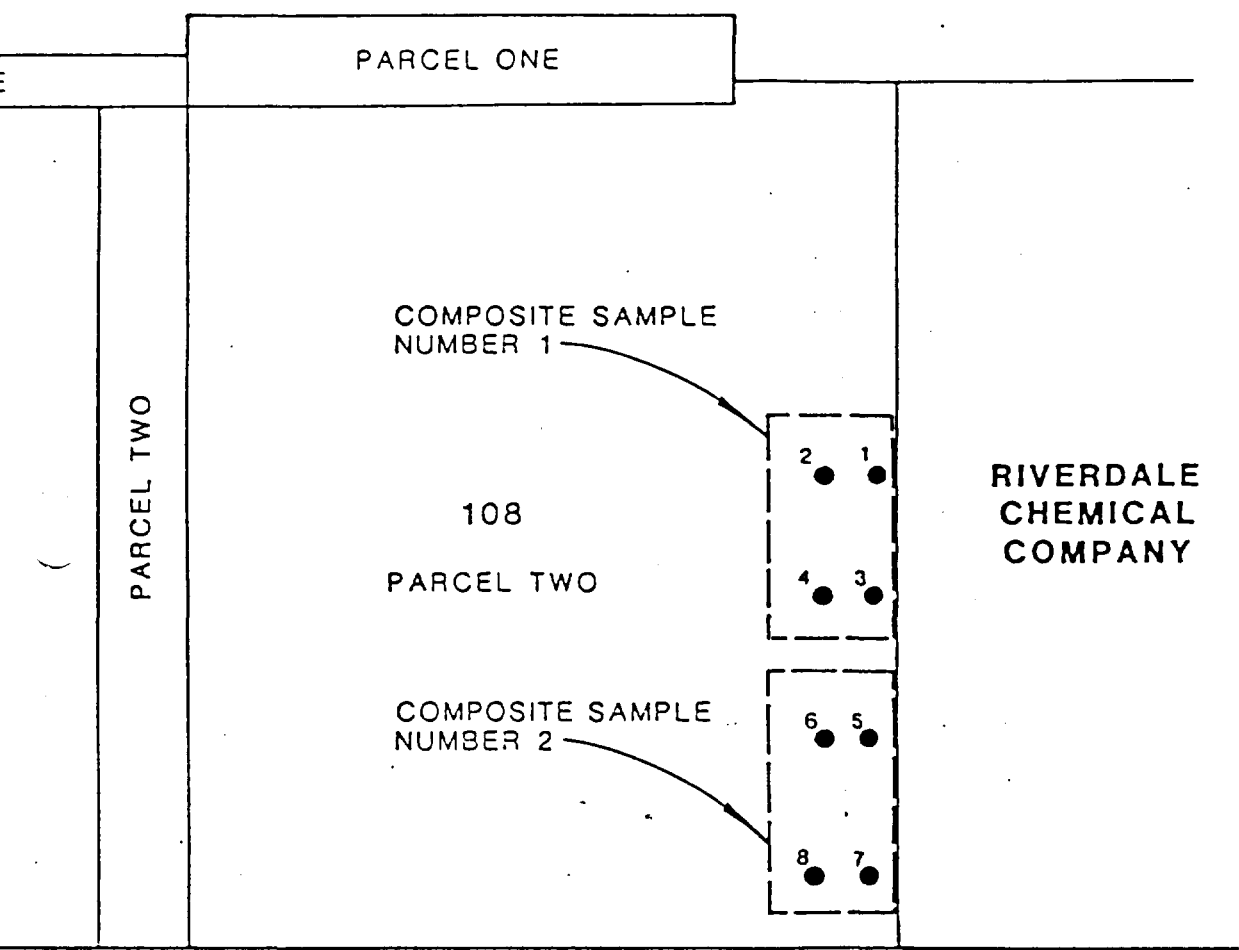
CHICAGO HEIGHTS TERMINAL RR



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	AREAS OF MI
	AREA OF ASF

7TH STREET



3A. CENTRAL RR

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FIGURE 2
SURFACE SOIL
SAMPLING LOCATIONS

PREPARED FOR
CHICAGO HEIGHTS STEEL
CHICAGO HEIGHTS, ILLINOIS



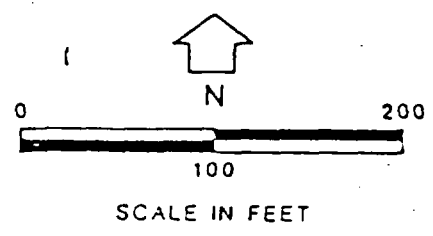
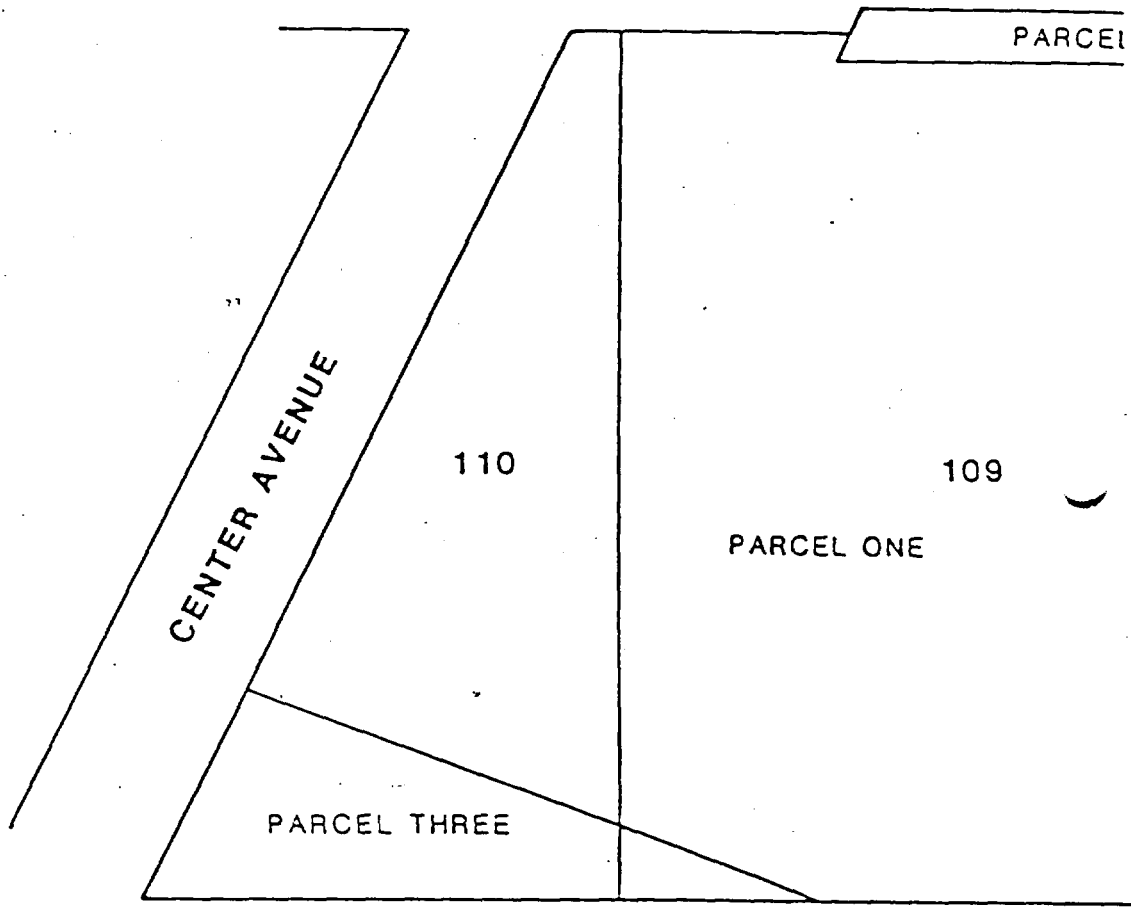
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CHICAGO HEIGHTS TERMINAL RR



LEGEND
2 ● SAMPLING LC